IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Michael J. Hawthorne *et al.*	Confirmation No. 8600	
Serial No.:	10/656,253	Art Unit:	2128
Filed:	September 8, 2003	Examiner:	LUU, Cucong V.
For:	**METHOD OF TRANSFERRING FILES AND ANALYSIS OF TRAIN OPERATIONAL DATA**		

AMENDMENT

Mail Stop Amendments
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the official Patent Office action dated January 12, 2007 and the interview of April 12, 2007, Applicants request reconsideration of the rejections. Claims 1, 2, 5-7 and 10-14 were rejected as anticipated under 35 U.S.C. 103 by Mosier U.S. Patent 4,041,283 in view of Polivka U.S. 5,828,979. Claims 3, 8, 9 and 15 were further rejected under 35 U.S.C. 103 as being obvious over Mosier and Polivka in combination with Lynch *et al.*, and/or Herzberg *et al.*

Independent Claim 1 is directed to a method of adjusting a dynamic model having initial parameters of a simulator comprising inputting data from the train into the simulator and operating the simulator with the data and initial parameters to produce model data. The next step is adjusting automatically using software the parameters of the dynamic model until the model data matches the data from the train.

Independent Claim 10 is a method for fine-tuning of a train dynamic model in a processor on the train. The method includes inputting real time, measured train data from the train into the processor and running the train dynamic model with the initial parameters to produce modeled train data. Next the model train data and the measured train data are compared and the train parameters for the model are automatically adjusted using software until the modeled train data matches the measured train data.

Applicants agree with the rejection that Mosier does show inputting data from the train into the simulator and operating the simulator with the data. What it does not show is automatically adjusting the parameters of the dynamic model until the model data matches the data from the train. Column 17, lines 30-59 of Mosier does not meet this claim limitation.

It is noted in column 17 lines 50 through 53 "Rolling resistance force F_{Rn} are then corrected to account for breaking forces F_{Bn} to provide a corrected coupler force F_{RBn} at each car." When one reads the patent as a whole, this correction is not a correction of the math model. This is an implementation of the math model. The description of the math model begins at the bottom of column 11 and continues at the top of column 14. As is noted by equation 1, the force F_{RBA} is the sum of the rolling resistance resistance R_R, the breaking resistance force R_B, and the acceleration resistance R_A. The rolling resistance R_R is calculated by formula 2. The breaking resistance R_B is calculated by equation 3 and the acceleration resistance is calculated by formula 4. Each of these formulas for the resistances includes perimeters which are selectable. It's these perimeters which are adjusted in the present invention.

As indicated in the interview, the presence or absence of breaking, which is from the train data, determines whether the breaking resistance R_B is present or not present in the equations 1 and 4. This is not an adjustment of the model, but basically using the train data in the model. Thus the implementation of the model described in column 17 is not an adjustment of the model but it is an implementation of the model. The acceleration resistance factor R_A described in column 17 after the correction of the rolling resistance by the breaking force requires the precalculation of the rolling resistance and the breaking resistance. As noted in equation 4, again this is not an adjustment of the model, but basically implementing the train data using the fixed model.

A diagram of the resistances and force of the math models is illustrated in Figure 8.

As discussed above, Claim 10 is also directed to fine-tuning of a train dynamic model and is on a processor in the drain. With respect to Claim 1, Mosier does not discuss fine-tuning of a model by running the dynamic model and comparing the results of the model train data with the measured train data. Thus, Mosier cannot anticipate nor would it be obvious to modify to meet the limitation of Claim 10.

The original dependent Claims 5 and 6 have been rewritten in dependent form and are allowable for their additional limitation as well as the limitations of Claim 1.
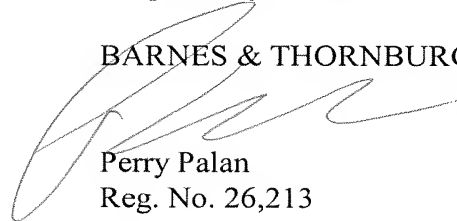
With respect to Claim 5, the area noted in column 18 lines 43 through 52 merely has to do with updating the displays 13 through 18 "When the train has moved far enough to justify redrawing of the profile". The same section is noted in Claim 6 and is also unsupported.

It should be noted the dependent claims are allowable for their own independent limitations, as well as the limitations of independent Claims 1 and 10. All of the claims are considered allowable over the art of record and thus the passage of this case to issue is respectfully solicited.

It is respectfully requested that, if necessary to affect a timely response, this paper be considered as a Petition for an Extension of Time sufficient to affect a timely response and shortages in other fees be charged, or any overpayment in fees be credited, to the Barnes & Thornburg LLP Deposit Account No. 02-1010 (509/35644D).

Respectfully submitted,

BARNES & THORNBURG LLP

Perry Palan
Reg. No. 26,213